

REMARKS-General

1. The newly drafted independent claim 21 incorporates all structural limitations of the original claim 1 and includes further limitations previously brought forth in the disclosure. No new matter has been included. All new claims 21-36 are submitted to be of sufficient clarity and detail to enable a person of average skill in the art to make and use the instant invention, so as to be pursuant to 35 USC 112.

Response to Rejection of Claims 1-20 under 35USC112

2. The applicant submits that the newly drafted claims 21-36 particularly point out and distinctly claim the subject matter of the instant invention, as pursuant to 35USC112.

Regarding Rejection of Claims 1, 4 and 6 under 35USC102

3. The Examiner rejected claims 1, 4 and 6 under 35USC102(b) as anticipated by or, in the alternative, under 35USC103(a), as obvious over Napetschnig (US 4,245,496).

4. Pursuant to 35 U.S.C. 102, "a person shall be entitled to a patent unless:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.

5. In view of 35 U.S.C. 102(b), it is apparent that a person shall not be entitled to a patent when his or her invention was patent in this country more than one year prior to the date of the application for patent in the United States.

6. However, the Napetschnig patent and the instant invention are not the same invention according to the fact that the independent claims 1 and 15 of the Napetschnig patent do not read upon the instant invention and the independent claim 21 of the instant invention does not read upon the Napetschnig patent too. Apparently, the instant invention, which discloses hardness tester with transmission shaft, should not be the same invention as the Napetschnig patent which discloses Portable material hardness tester.

7. Napetschnig fails to anticipate the distinctive features as follows:

(a) In claim 21, “a transmission shaft slidably disposed in the receiving chamber to end-to-end contact between the driving axle and the penetrating pin” is claimed to transmit the penetrate force from the driving axle to the penetrating pin, wherein Napetschnig merely teaches, column 3, lines 15-16, the penetrator stem 19 is mounted to the lower end of the shaft 36 without any mention of any contact between the penetrator stem 19 and the shaft 36. According to the instant invention, the upper and lower ends of the transmission shaft CONTACT with the driving axle and the penetrating pin respectively. Indeed, Napetschnig fails to anticipate any transmission shaft for penetrating force transmission. In other words, there is no connection or attachment between the transmission shaft, driving axle, and the penetrating pin.

(b) In claim 21, “a displacement sensor supported in the receiving chamber for detecting a linear displacement of the transmission shaft” is claimed to measure the hardness of the tested object, wherein Napetschnig merely teaches, column 3, lines 11-13, means 17 for sensing the differential movement of the penetrator 13 to detect the hardness of the material to be tested.

(c) In claim 21, “the driving wheel is rotated to apply a penetrating force on the driving axle” is claimed, wherein Napetschnig merely teaches, column 3, lines 48-51, means 14 comprises a helical spring mounted between a spring rest 51 and the upper end of the shaft 36 to directly apply the surface penetrating force on the penetrator 13. It is apparent that Napetschnig teaches the surface penetrating force directly exerting on the penetrator 13.

(d) Napetschnig fails to achieve the objective of the instant invention of using “a transmission shaft physically contacted between the driving axle and the penetrating pin for transmitting the penetrating force from the driving axle to the penetrating pin so as to minimize the error of the test result through the testing operation due to the unwanted lateral movement of the driving axle” as claimed in claim 21. Accordingly, since the transmission shaft transmits the penetrating force from the driving axle to the penetrating pin, the linear displacement of the transmission shaft can be precisely detected by the displacement sensor to generate an accurate test result.

8. Pursuant to 35 U.S.C. 103: “(a) A patent may not be obtained thought the invention is **not identically** disclosed or described as set forth in **section 102 of this title**, if the **differences** between the subject matter sought to be patented and the prior art are such that the **subject matter as a whole would have been obvious** at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.”

9. In view of 35 U.S.C. 103(a), it is apparent that to be qualified as a prior art under 35USC103(a), the prior art must be cited under 35USC102(a)~(g) but the disclosure of the prior art and the invention are not identical and there are one or more differences between the subject matter sought to be patented and the prior art. In addition, such differences between the subject matter sought to be patented **as a whole** and the prior art are obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.

10. In other words, the differences between the subject matter sought to be patent as a whole of the instant invention and Napetschnig which is qualified as prior art of the instant invention under 35USC102(b) are obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.

11. The applicant respectfully submits that in order to determine whether the differences between the subject matters sought to be patent as a whole of the instant invention and the primary prior art, Napetschnig, are obvious, we have to identify all the differences between the claims of the instant inventions and Napetschnig, including the above distinctive features (a) to (d). The applicant further identifies the differences between the claims of the instant invention and Napetschnig as follows:

(e) Napetschnig does not teach any “an opening edge of the guiding cylinder has a flat surface” for substantially biasing against the testing surface of the tested object as claimed in claim 22 in addition to what is claimed in claim 21 as a whole.

(f) Napetschnig does not teach “the displacement sensor, which is a capacitive sensor, comprises a linear sensor circuit and first and second linear sensor terminals” as claimed in claims 23 to 24 in addition to what is claimed in claim 21 as a

whole. Napetschnig merely teaches a pair of electric strain gauges mounted for sensing relative movement between the member 11 and the penetrator 13.

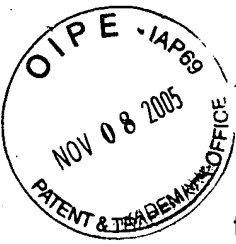
(g) Napetschnig does not teach “the transmission shaft has a driven end point-to-point contacting with the driving axle and a driving end point-to-point contacting with the penetrating pin” as claimed in claims 25 to 27 in addition to what is claimed in claim 21 as a whole.

(h) Napetschnig does not teach “a force sensor, which is a resistance strain gage, coupling with the driving axle for detecting the penetrating force” as claimed in claims 28 to 30 in addition to what is claimed in claim 21 as a whole.

(i) In claims 31-33, “a retaining frame, extending from the supporting frame, has a supporting platform adjustably aligned with the pin head of the penetrating pin” is claimed to substantially retain the opening edge of the guiding channel at the testing surface of the tested object while Napetschnig fails to teach such retaining frame.

(j) Napetschnig fails to teach “a spherical bottom portion mounted at a free end of the L-shaped retaining arm in a rotatably movable manner” is claimed for allowing the pin head of the penetrating pin to align with the testing surface of the tested object as claimed in claims 34 to 36 in addition to what is claimed in claim 21 as a whole.

12. The applicant respectfully submits that the invention must be considered as a whole and there must be something in the reference that suggests the combination or the modification. See Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick, 221 U.S.P.Q. 481, 488 (Fed. Cir. 1984) (“The claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination”), In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984), (“The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.”) In re Laskowski, 10 U.S.P.Q.2d 1397, 1398 (Fed. Cir. 1989), (“Although the Commissioner suggests that [the structure in the primary prior art reference] could readily be modified to form the [claimed] structure, “[t]he mere fact that the prior art could be modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.”)



13. In the present case, there is no such suggestion. Napetschnig fails to suggest the above distinctive features (a) to (j) as claimed in the instant invention. Applicant believes that for all of the foregoing reasons, all of the claims are in condition for allowance and such action is respectfully requested.

The Cited but Non-Applied References

14. The cited but not relied upon references have been studied and are greatly appreciated, but are deemed to be less relevant than the relied upon references.

15. In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration and withdrawal of the objection are requested. Allowance of claims 21-36 at an early date is solicited.

16. Should the Examiner believe that anything further is needed in order to place the application in condition for allowance, he is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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CERTIFICATE OF MAILING

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